

ABSTRACT OF THE DISCLOSURE**INSERTION OF REPEATERS WITHOUT TIMING CONSTRAINTS**Inventors:

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10 A method/process for repeater insertion in the absence of
timing constraints. Delays are optimized for multi-receiver and
multi-layer nets and can be introduced in the early steps of
design planning. It serves as a tool for interconnect
prediction as well as planning. In the presented formulation,
15 no restrictions are made on where the repeaters are added or
what the topology of the net is. The tabulated results
demonstrate improvement (speed ups) using the method/process of
the present invention. The present invention runs in linear
time and achieves better results than the existing dynamic
20 programming formulation and other published heuristics.
Polarity in a circuit design is corrected by traversing the
circuit and carrying backwards a cost of fixing the polarity.
On a subsequent traversal, buffers inserted fix the polarity.